SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTIONS OF LARYNGOLOGY AND OTOLOGY

COMBINED SUMMER MEETING AT THE UNIVERSITY OF BRISTOL

June 27th, 28th and 29th, 1957

LARYNGOLOGY SECTION

President: J. ANGELL JAMES, M.D., F.R.C.S.

THE opening papers by Miles Taylor, J. M. Yoffey, R. W. Raven, M. Lederman, R. G. Macbeth and Seymour Jones, will be found on pp. 365-408.

DR. A. MACKENZIE ROSS: I thank Dr. Taylor for his most interesting paper. I would like to ask him how it is that in the treatment of Hay Fever, some cases respond admirably to Zinc Ionization while other similar cases do not respond. I wonder if Dr. Taylor would also study the subject—Nasal Polypi—why are they produced and why do they recur after apparent complete removal? I personally have also observed that in cases of Nasal Catarrh and Allergic Rhinitis, the administration of Calcium has a beneficial effect and lessens the catarrh. This would appear to confirm that there is a chemical abnormality in the tissues in conditions of Nasal Allergy.

DR. MILES TAYLOR: I regret that my work is not sufficiently advanced to give a detailed reply to your query.

I would like to express my thanks to the Society for the kind way in which they have received my communication.

MR. MACBETH asked Professor Yoffey: If the tonsils had been shown to have afferent lymphatic vessels.

In reply to Mr. R. G. Macbeth, PROFESSOR YOFFEY said that while we had not made any special study of tonsillar lymphatics, we had never, in the type of experiments which we performed, seen evidence of dye entering the interior of the tonsil, even though the peri-tonsillar network was well marked and heavily stained. He pointed out, too, that the structure of the tonsil is such that it is not placed in the course of a lymph stream, and does not possess the lymph sinuses which seem to be characteristic of lymphoid tissue which is receiving afferent lymphatic vessels.

MR. R. C. TUDWAY: The treatment of carcinoma in the pharynx and larynx by deep X-ray therapy has always been restricted because the tissues in that area are sensitive and react easily to radiation, while the growth is fairly resistant and requires quite a heavy dose to give any chance of cure. In the case of carcinoma of the larynx X-ray treatment has had a little success, but in the

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case of post-cricoid carcinoma the difficulties mentioned are greater and our efforts with deep X-rays have been consistently ineffective. A better quality of radiation, such as that from the tele-radium unit Dr. Lederman has used, or the radioactive cobalt version of this machine, does however, have greater success as Dr. Lederman has shown.

I find myself in complete agreement with what Dr. Lederman has said except possibly for one minor point. I think there is some advantage in the larger and heavier machines such as the large tele-cobalt units or linear accelerators. This is, I think, a minor advantage arising from the fact that the skin reaction when these larger machines are used, is a little less and the beams can be directed with slightly greater precision. These slight advantages would certainly not justify the installation of this large machinery merely for the treatment of post-cricoid lesions, but when this kind of equipment is available I feel sure that the larger cobalt units or 4 million volt linear accelerators are the best forms of radiotherapy that we have at present.

Our own experience at Bristol has been just as depressing as that of other centres and is based mainly on the use of orthodox deep X-rays. My colleague, Dr. Curwen, will be telling you a few details. We have, however, in the last two years been using a full-sized cobalt beam unit for these cases. My first impression is that the patients are doing a little better with this treatment, because the radiation reactions are very much less and a more effective dose may be given. We shall have to wait of course, to see if these first impressions are correct and whether we can salvage a few more cases by the use of the higher quality radiation.

MR. SYDNEY CURWEN: The treatment of post-cricoid carcinoma with radiotherapy has hitherto proved unsatisfactory. Using conventional, that is to say, deep X-ray therapy in the 250 K.V. range, very few patients survive more than a year, and only two patients out of some thirty-five cases reviewed over eighteen years at Bristol, survived more than five years. The patients treated with the tele-cobalt unit have shown a slightly greater promise of success, but as this unit has only been in operation for two years it is a little early as yet to assess the results. I agree with Dr. Lederman that a combined attack of radiotherapy of the higher energy type followed by surgery is the method of choice. I do feel, however, that this procedure must be carefully planned and adhered to; even if the immediate results of therapy are successful surgery should follow in every case.

MR. M. FAIRMAN: I would like to present a report upon the fate of all cases of post-cricoid carcinoma of which record can be found, referred to the E.N.T. Department of the Bristol Royal Hospitals during the past ten years.

The treatment of these cases was considered with a definite bias in favour of surgical treatment, and, therefore, the more promising cases were selected for operation and the more advanced cases, and those with poorly differentiated growths, were referred for radiotherapy. For this reason the end results of treatment as reported in this communication may differ from those reported by my colleague of the radiotherapy department.

The total number of cases I have to report is 49, 15 male and 34 female, in all the diagnosis has been confirmed histologically. The survival rate has been calculated from the date of diagnosis. Of these one only, i.e. 2 per cent., has

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survived 5 years, but 5 cases (one still undergoing treatment) are still alive today.

It is pointless to talk in terms of "5 year cure" in regard to these figures, but considered in terms of 2-year survival, the results of surgical treatment alone or combined with radiotherapy, with 8 cases surviving out of a total of 23, show a marked advantage over the results of treatment by radiotherapy alone, with 1 survival out of 20.

The choice of cases for surgical treatment has varied considerably with individual surgeons. I personally, have confined my selection to cases of very limited extent, with no glandular metastases and histologically well differentiated. The surgical procedure adopted has varied from (1) laryngo-pharyngo-œsophagectomy with two-stage repair by means of full thickness skin flaps from the neck; (2) laryngo-pharyngo-œsophagectomy with one-stage repair by means of a split-skin graft supported on a plastic tube; (3) pharyngo-œsophagectomy with preservation of the larynx together with two or one-stage closure as above. In a number of cases dissection of the cervical glands has also been performed.

The cases treated by combined surgery and radiotherapy have been either cases of failed surgery or failed radiotherapy, or surgery for the excision of stricture following radiotherapy. The combination of treatment has been largely fortuitous rather than by intent.

All the cases complained of some discomfort in the throat and most of difficulty in swallowing. Two cases presented as thyroid tumours and in one the thyroid was explored. Three cases were diagnosed on a second endoscopy a few months after an original negative endoscopy. Search of the records has revealed one case, treated by radiotherapy alone, which survived 17 years and nine months, and then died of a recurrence.

CASES OF PROVEN POST-CRICOID CARCINOMA REFERRED TO THE E.N.T. DEPARTMENT OF THE BRISTOL ROYAL HOSPITAL SINCE JANUARY 1ST, 1947. TO SHOW SURVIVAL TO NEAREST SIX MONTHS

	Total	6 mo.	1 yr.	18 mo.	2 yr.	2½ yr.	3 yr.	3½ yr.	4 yr.	4½ yr.	5 yr.	
All cases	M. F. 15 34 49	32	20	11	9	8	6	4	3	3	1	5 cases still alive, 1 under treatment.
No treatment ..	6	2	1	1	0	0	0	0	0	0	0	
Radiotherapy alone	20	9	4	1	1	0	0	0	0	0	0	
Surgery alone ..	12	10	7	4	4	4	2	1	1	1	0	3 still alive after 1 year 3 months, 2 years 7 months, 4 years 7 months.
Surgery with radiotherapy	11	11	8	5	4	4	4	3	2	2	1	1 still alive after 7 years 6 months.

MR. K. G. MALCOMSON: Of the 227 cases of carcinoma of the hypopharynx seen in the E.N.T. Department in the Cardiff Royal Infirmary in the past 25 years, 75 were treated by partial or total pharyngolaryngectomy.

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In the 20-year period up to June, 1952, 43 patients underwent pharyngolaryngectomy. Thirteen of these patients died within a month of operation (12 within the first post-operative week), i.e. 32 per cent. of the total died during the immediate post-operative period.

The deaths during the first month are largely ascribable to the effects of operation, and those that survive this period are more likely to succumb to recurrence of the disease. Thus, of the group of 30 patients surviving the immediate post-operative period, 18 (60 per cent.) survived 1 year, 10 (33 per cent.) survived 2 years, 9 (30 per cent.) survived 3 years, 8 (27 per cent.) survived 4 years, and 6 (20 per cent.) survived 5 years or more, or nearly 14 per cent. of the original group of 43 patients. The longest survival period without recurrence is 23 years.

If the whole group of 75 patients is taken, there were 24 deaths (32 per cent.) during the immediate post-operative period. Of the 51 patients surviving this period, 31 (62 per cent.) survived 1 year, 13 (26 per cent.) survived 2 years, 10 (20 per cent.) survived 3 years, 8 (16 per cent.) survived 4 years, and 6 (12 per cent.) survived 5 years or more.

The use of antibiotics in the management of patients subjected to pharyngolaryngectomy would be expected to be of most value in the immediate post-operative period, i.e. the first month. The advent of the general use of antibiotics about 12½ years ago gives a natural division of the 25 year period into equal halves. Up to the end of 1944, Mr. Owen had carried out pharyngolaryngectomy on 15 patients, 6 of whom died within a month, a mortality of 40 per cent. Of the 60 pharyngolaryngectomies performed by Mr. Owen since then, there were 18 deaths during this initial period, a mortality of 30 per cent. The reduction in mortality by 10 per cent. is not very significant; undoubtedly nursing skill remains of fundamental importance during the critical first month.

MR. LEWIS suggested that in the two-stage operation, closure could be effected in three to four weeks, rather than waiting for two months, as Mr. Raven recommended.

MR. R. W. RAVEN in reply to Mr. R. S. Lewis: I leave a period of two months between the two operations to allow the tissues to settle down and the new skin flap to acquire an adequate blood supply.

If pre-operative radiation is given serious surgical problems are created which tax the resources of the surgeon to the utmost. Having in mind the great suffering of these patients we must proceed carefully with surgical treatment for which patients must be selected. These patients are amongst the happiest I have and I feel sure that with earlier diagnosis the results will improve.

PROFESSOR F. C. ORMEROD said that he considered the outlook for patients with post-cricoid cancer to be very much better, than even a few years ago. The results of one-stage excision described by Shaw and himself in March in the *Journal of Laryngology and Otology* showed seven survivals for one year or more out of seventeen. These figures dated to August, 1956, but the seven patients were still well almost a year later, and they had all been fairly advanced cases. Dr. Lederman had reported seven out of seventeen three-year survivals without recurrence in early cases and it might be that there was a place for radiotherapy in demonstrably early cases, but advanced cases should be treated by primary surgical excision. There was no doubt that the post-operative period

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was much shorter and recovery more complete if the patients had not been previously irradiated.

He was very sorry to hear one member refer to the misery and wretchedness of these patients after operation, and suggest that it was kinder to leave them alone. This was quite untrue. The patients were relieved of a septic fungating cancer, were up and about the day after operation, were swallowing in two weeks and many went home in three weeks. They were comfortable and happy, were able to lead useful lives and were very grateful for what had been done to them. There was very little in the neck that it was not possible to remove, and as it was now quite feasible to construct a new gullet immediately, there seemed to be no excuse for not carrying out this treatment.

MR. GEORGE SEED reported from Leeds:

Number of Patients seen at the Leeds General Infirmary (1946-1955)	58
Sex Incidence:	
Males	3
Females	55
Age Incidence	
30-40 years	2
41-50 years	12
51-60 years	15
61-70 years	16
71-80 years	12
81-90 years	1
Treatment:	
No treatment, too advanced	15
Patient refused treatment	1
Palliative Deep X-ray	11
Deep X-ray Treatment	20
Radium Beam	9
Radium Collar with bougie	2
Results:	
Six year cure	1
Five year cure	1
Died	56

Of the 56 patients who died four patients remained well for 15 months, 18 months, 18 months and $2\frac{1}{2}$ years respectively.

MR. A. J. MOFFETT: The Cancer Follow-up Department of the United Birmingham Hospitals has very kindly given me an extract of 139 cases which came under the care of the Hospitals during a period of 17 years, prior to 1955, and were subjected to various forms of treatment, radical or palliative, surgical or radio-therapeutic.

It seems apposite that this discussion is on the Management, rather than the treatment of post-cricoid carcinoma, for of this number (139), there were no survivors for the five-year period, and only 9 for more than one year. One case of this series survived $4\frac{1}{2}$ years, only to die of a radiation myelitis of the cervical chord, and I know of another, outside the range of this series, which has survived to develop a quadriplegia from the same cause.

My contribution, to this unhappy catalogue was an attempt in 1950 to improve on these results by radical surgery, comprises 9 cases operated on during the next 3 years.

The first 3 cases were two-stage operations. One of these developed a recurrence before the reconstruction phase could be undertaken, and presented

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a picture of such indescribable misery, that I felt some form of one-stage operation must be devised which would obviate this awful happening.

The next 6 were one-stage operations of various types, and of the total of 9 cases, 6 had either uni-lateral, or bi-lateral block dissection of the glands of the neck. I do not think that this procedure makes the slightest bit of difference.

None of my cases had a gastrostomy, nor was it necessary. I felt that with 3 unnatural orifices in the neck, the patient should be spared yet another in the abdomen.

Of my one-stage cases, one lived and returned to run his business for $2\frac{1}{2}$ years—apparently a surgical triumph—only to die of a histologically unrelated carcinoma of the bronchus, to which laryngectomized patients seem peculiarly susceptible.

This last case made me so disheartened that at that time, I felt that I would never again operate on one of these cases, and felt that the hope of cure must lie within the field of radiotherapy. I think that I can say with all fairness, that within my experience that hope has not yet been fulfilled.

If I do make a further attempt, it will be on these lines. The preliminary diagnosis would be made by inspection only. I suspect that a biopsy confirms, not only the diagnosis, but the patient's fate.

The growth and the gland area would be irradiated with a dose sufficient to halt the tumour, and discourage dissemination, but not sufficient to devitalize the tissues and make subsequent surgery hazardous. This would be followed by a two-stage operation without block dissection.

We all must feel that the published figures on this condition can give us little cause for satisfaction, but we tend to publish our successes, and keep our failures to ourselves. Therefore, it is not the published, but the un-published figures which will give the truer picture.

It needs very little imagination on the part of those who have had the care and treatment of these cases, to see in the wards and departments, surgical and radiotherapeutic, throughout the country, an aggregate of human misery, at which one is appalled.

I have great doubt in my mind whether it is justifiable to subject 5, 10, or 20, or whatever the number is, of patients to the misery and pain of surgery, or radiotherapy, prolonging their lives for a few weeks or months of unrelenting misery, in the hope of producing one survivor. At present I feel that the kindest thing to do in many of these cases is probably—nothing.

An extract of the survival rates of 139 cases of post-cricoid carcinoma under the care of the United Birmingham Hospitals.

1936-1953

Females:	100	Males: 39
Untreated:	4 cases. Because of age.	
Remainder:	135 cases. All types of treatment.	
Survived:	1 year or more	4
Survived:	2 years or more	4
Survived:	3 years or more	Nil
Survived:	4 years 9 months	1 with quadriplegia.

No 5 year survivors.

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